

**TargetStrategies™**  
**Aligned Reading Strategies**  
**Priority Academic Student Skills**  
**6<sup>th</sup> Grade**

**PASS Objective:** OKR061502a  
Research and information: Conduct research and organize information: Interpreting information: Analyze and evaluate information from a variety of sources: Record, organize, and display relevant information from multiple sources in systemic ways (e.g., outlines, graphic organizers, or note cards) (STANDARD 5.2a)

**Focus Objective:** The student will record, organize, and display research information from multiple sources in systematic ways.

**Genre:** Nonfiction/Fiction

**Reading Integration:** Language Arts, Science, Oral Presentation

**Level:** Synthesis

**Prerequisite Skills:**

- determine a passage's main (or major) ideas and how those ideas are supported by details (R6.9)
- organize information from a nonfictional passage in outline form (R6.17)
- paraphrase and summarize a passage to recall, inform, and organize ideas (R6.18)
- use text organizers to locate and organize information (e.g., headings, graphics, table of contents) (R6.20)
- use Roman numerals

(Coding refers to an applicable TargetFundamentals™ lesson.)

**Related Objectives:**

- OKR061301a Comprehension/critical literacy: Interact with the words and concepts in the text to construct an appropriate meaning: Literal understanding: Use prereading strategies independently (to preview, activate prior knowledge, predict content of text, formulate questions that might be answered by the text, establish purpose for reading) (STANDARD 3.1a)
- OKR061301c Comprehension/critical literacy: Interact with the words and concepts in the text to construct an appropriate meaning: Literal understanding: Recognize main ideas presented in a particular segment of text; identify and assess evidence that supports those ideas (STANDARD 3.1c)

- OKR061303d Comprehension/critical literacy: Interact with the words and concepts in the text to construct an appropriate meaning: Summary and generalization: Clarify understanding of text information in different ways (e.g., timelines, outlines, graphic organizer) to support and explain ideas (STANDARD 3.3d)
- OKR061501a Research and information: Conduct research and organize information: Accessing information: Select the best source for a given purpose: Use card catalogs and computer databases to locate sources for research topics (STANDARD 5.1a)
- OKR061501b Research and information: Conduct research and organize information: Accessing information: Select the best source for a given purpose: Access information from a variety of primary and secondary sources to gather information for research topics (STANDARD 5.1b)
- OKR061501c Research and information: Conduct research and organize information: Accessing information: Select the best source for a given purpose: Use organizational strategies as an aid to comprehend increasingly difficult content material (STANDARD 5.1c)
- OKR061501e Research and information: Conduct research and organize information: Accessing information: Select the best source for a given purpose: Use reference features of printed text, such as citations, endnotes, and bibliographies, to locate relevant information about a topic (STANDARD 5.1e)
- OKR061502b Research and information: Conduct research and organize information: Interpreting information: Analyze and evaluate information from a variety of sources: Identify and credit the reference sources used to gain information (STANDARD 5.2b)
- OKR061502c Research and information: Conduct research and organize information: Interpreting information: Analyze and evaluate information from a variety of sources: Determine the appropriateness of an information source for a research topic (STANDARD 5.2c)
- OKR061502d Research and information: Conduct research and organize information: Interpreting information: Analyze and evaluate information from a variety of sources: Summarize information from multiple sources into a research paper (STANDARD 5.2d)

## INSTRUCTIONAL PREPARATION

Materials:

- note cards (twelve per student, use six for Instruction and six for Practice)
- poster board (one piece per three-person group, use for Practice)
- markers (one set per three-person group, use for Practice)

Choose or prepare the following:

- sets of research materials on two parallel research topics that can be compared (see the “Coyote Research Sources” and “Wolf Research Sources” sheets) (use two topics for Practice and two different topics for Assessment)
- partially complete outlines for both of the chosen research topics (use for Practice)

Duplicate the following (one per student unless otherwise indicated):

- *Types of Graphic Organizers* reference sheet (use for Instruction)
- “Coyote Research Sources” sheet (use for Instruction)
- *It’s So Organized I* handout (use for Instruction)
- “Wolf Research Sources” sheet (use for Instruction)
- *It’s So Organized II* handout (use for Instruction)
- *Comparing and Contrasting* handout (use for Instruction)
- the sets of prepared research materials (one set for each topic per three-person group, use for Practice; one set for each topic per student, use for Assessment)
- the partially complete outlines for both of the chosen research topics (use for Practice)

Prepare a transparency of the following:

- “Coyote Research Sources” sheet (use for Instruction)
- *It’s So Organized I* handout (use for Instruction)
- *It’s So Organized II* handout (use for Instruction)
- *Comparing and Contrasting* handout (use for Instruction)

Display the Focus Questions:

- How can a reader use note cards to record and organize information?
- How can a reader use an outline to record and organize information?
- How can a reader use a Venn diagram to analyze, organize, record, and display information?

## INSTRUCTION

1. Begin instruction by explaining that people often have trouble organizing a large amount of information during research. Explain that many times people have difficulty deciding what to include or what not to include in the notes they take while researching. It is important to narrow a research topic to avoid becoming overwhelmed by the topic. For example, if you were going to research the topic of governments, it would be important to narrow your topic to only a very few countries, states, or cities. Even if you were to choose only one government, such as the government of the United States, you may still need to narrow this topic further by focusing only on the executive, judicial, or legislative branch. Ask the following question:

- ✓ How can a research topic be narrowed? (*Appropriate answers are as follows: by brainstorming different aspects of a main topic; by doing preliminary research and deciding to concentrate on only a select few aspects of a main topic.*)

Discuss the responses for accuracy. Accept all reasonable responses.

2. Tell the students that today they will be researching two animals, coyotes and wolves. Explain that they will eventually be analyzing the information they gather by comparing and contrasting the two animals. However, it is important to narrow the research about the two animals to only a few subtopics to avoid becoming overwhelmed by the amount of information that is available about these animals. On the classroom board, draw a web. In the center of the web, write “Coyotes and Wolves.” Then ask the following question:

- ✓ What general topics could someone research about coyotes and wolves? (*Appropriate responses are as follows: their appearances; their habitats; their family structures; their life spans; myths surrounding them.*)

Discuss the responses for accuracy. Accept all reasonable responses. Tell the students that in today’s lesson they will be researching the appearances, habitats, and family structures of each type of animal. Tell the students that each of these is a subtopic for research about coyotes and wolves. Write each of these subtopics on the classroom board.

3. Distribute copies of the *Types of Graphic Organizers* reference sheet. Explain to the students that many different graphic organizers exist. These organizers may be useful in recording and organizing information on a main topic or a subtopic when researching information. Discuss each organizer on the reference sheet, and ask the following questions:

- ✓ When would a main idea web be used? (*An appropriate response is as follows: when recording the details related to the main idea of a nonfictional passage.*)
- ✓ When would a topic web be used? (*An appropriate response is as follows: when recording facts from a single source or multiple sources related to a specific topic.*)
- ✓ When would a main idea map be used? (*An appropriate response is as follows: when recording the details related to the main idea of a nonfictional passage.*)

- ✓ When would a reader use a timeline web? (*An appropriate response is as follows: when chronologically organizing details related to an event or details of a person's life.*)

Discuss the responses for accuracy. Accept all reasonable responses.

4. Convey to the students that they will be using still another method of organizing and recording information during their research. Distribute three note cards to each student. Instruct the students to label each note card with one of the subtopics on the classroom board, as well as the word "coyote." Explain that they will be using these note cards to record information they find during their research. Distribute the "Coyote Research Sources" sheet and display the first page of the transparency. Read the "Encyclopedia Entry" section of the sheet aloud as the students read along silently. Then ask the following questions:

- ✓ Which sentences from the entry discuss the subtopic of the coyote's appearance? (*"The coyote stands about two feet tall. Its coat varies in color from gray to tan. Its nose is long and pointed, and the fur on its tail is quite bushy. It is a very lean animal and weighs between 20 and 50 pounds on average."*)
- ✓ Which sentences from the entry discuss the subtopic of the coyote's habitat? (*"The coyote (Canis latrans) is found solely in North America. Unlike most large mammals, the coyote has expanded its territory despite the expansion of the human population."*)
- ✓ Which sentences from the entry discuss the subtopic of the coyote's family structure? (*"Coyotes live and hunt either as individuals or as pairs and they prey on small animals, such as shrews, mice, and rabbits. Coyotes mate for life. On an average, five coyote pups are born in each coyote litter."*)

Discuss the responses for accuracy. Instruct the students to write this information on the appropriate note cards. Then ask the following questions:

- ✓ Which sentences from the entry do not discuss the coyote's appearance, habitat, or family structure? (*"Howls, yips, and barks are common among coyotes. These calls are often heard at twilight or in the evening."*)
- ✓ How do you know this? (*An appropriate response is as follows: because these sentences refer to coyote vocalizations and do not describe aspects of the coyote's appearance, habitat, or family structure.*)

Discuss the responses for accuracy. Accept all reasonable responses. Instruct the students to disregard the sentences that mention coyote howls, yips, and barks because they do not apply to the three subtopics of your research.

5. Ask the first focus question. Give the students time to think about it. Lead a discussion that guides the students to the understanding that a reader can use note cards to record and organize information by
  - ✓ brainstorming to determine subtopics for research,

- ✓ writing each subtopic as a heading on a note card,
  - ✓ researching information about the main topic of research,
  - ✓ determining whether the information applies to one of the subtopics of research,
  - ✓ writing applicable research information on the appropriate note card.
6. Instruct the students to continue this process with the remaining two “sources” on the “Coyote Research Sources” sheet. When the students have finished, ask volunteers to share the information they included on each note card. Discuss the responses for accuracy. Accept all reasonable responses.
7. Tell the students that they will now use their note cards to organize their information into an outline. Explain that an outline provides a hierarchy of information, from the main topic to specific details. Distribute the *It’s So Organized I* handout and display the transparency. Point to the word “Coyotes” on the handout. Explain that this is the main topic of the outline, just as it was the main topic for the research that the students just completed. Point to Roman numeral I, “Appearance.” Explain that this is the first subtopic of the outline, as it was also a subtopic they used during their research, and that subtopics are labeled with ascending Roman numerals. Point to Roman numeral III, “Family Structure.” Explain that this is another subtopic they used during their research. Point to Roman numeral II. Then ask the following questions:
- ✓ What subtopic should be written here? (*Habitat*)
  - ✓ How do you know this? (*Appropriate responses are as follows: because it is the only subtopic from the previous research that has not yet been used on the outline; from the clues given under the subtopic, such as “Where They Live” and “Population.”*)

Discuss the responses for accuracy. Accept all reasonable responses. Write the word “Habitat” in the appropriate blank and have the students do the same on their copy of the handout. Point again to Roman numeral I, “Appearance.” Explain that while they were researching the appearance of the coyote, the students recorded information about its size and physical features. These two aspects of the coyote are designated by the capital letters “A” and “B.” Point to the capital letter “A.” Explain that since “size” is a bit more specific than the subtopic of “Appearance,” it is written underneath “Appearance” next to the capital letter “A.” Further explain that still more specific to the topic of size are the weight and height of the coyote. These are designated by the numbers 1 and 2. Point to the number “1” next to the word “Weight.” Explain that more specific still are the actual measurements of the coyote’s weight and height, and these details are both designated by the small letter “a” because they each describe the numbered subtopics. Point to the letter “a” under “Weight” and read the detail that follows it. Then point to the “a” underneath “Height” and ask the following question:

- ✓ What detail should be written here? (*2 feet tall*)

Discuss the responses for accuracy. Write the response in the appropriate space on the transparency and have the students do the same on their copy of the handout.

Then have the students look at the information under “B. Physical Features.” The number 1 lists information about the coyote’s coat and mentions under “a” that the coyote’s coat is gray or tan. With the students’ assistance, determine what other feature the sources tell you about the coyote’s coat and write that feature next to the “b” under “Coat.” Refer to the Teacher’s Answer Key for correct responses. Point to the blank next to “2” under the “Physical Features” subtopic. Tell the students to read the first two details under the blank and to use this information to make an educated guess about the heading. Ask the following questions:

- ✓ What information should be written here? (*Appropriate answers are as follows: Body Shape; Body Description*)
- ✓ How do you know this? (*An appropriate answer is as follows: because the details underneath the blank are “pointy nose” and “bushy, round tail,” both of which describe parts of the coyote’s body.*)

Discuss the responses for accuracy. Accept all reasonable responses. Write “Body Shape” in the appropriate blank and have the students do the same on their copy of the handout. Point out to the students that each successive subtopic or detail is indented farther than the broader topics.

8. Ask the second focus question. Give the students time to think about it. Lead a discussion that guides the students to the understanding that a reader can use an outline to record and organize information by
  - ✓ determining the main topic of the research;
  - ✓ determining the subtopics of the research topic;
  - ✓ determining the hierarchy of the subtopics;
  - ✓ assigning Roman numerals to the most important subtopics;
  - ✓ assigning capital letters, numbers, and lowercase letters to the other subtopics in order of importance;
  - ✓ detailing the information about each subtopic under the appropriate numbers and letters.
9. Put the students in pairs. Instruct each pair to complete the remainder of the outline. Remind the students that while they may work cooperatively, each student is responsible for his or her own handout. When the students have finished, discuss their responses for accuracy. Have volunteers write correct answers on the transparency. Refer to the Teacher’s Answer Key for the *It’s So Organized I* handout for correct answers.
10. Have the students remain in pairs. Distribute three more note cards and the “Wolf Research Sources” sheet to each student. Instruct the pairs to label each of the note cards with the same subtopics (appearance, habitat, and family structure) that they used during their research about coyotes, but to replace the word “coyote” with “wolf.” Instruct them to take notes in the same way as they did for the coyote research resources. When the students have finished, discuss the responses for accuracy.

11. Distribute copies of the *It's So Organized II* handout and display the transparency. Instruct the pairs of students to complete the handout in the same manner as they did the *It's So Organized I* handout. When the students have finished, discuss the responses for accuracy, using the Teacher's Answer Key as a reference. Have volunteers write correct answers in the appropriate spaces on the transparency.
12. Distribute copies of the *Comparing and Contrasting* handout and display the transparency. Explain that the handout contains a Venn diagram, and its purpose is to help readers compare and contrast information. The circle on the left side of the diagram will contain details that are exclusive to coyotes. The circle on the right side of the diagram will contain details that are exclusive to wolves. The section in the middle will contain details that coyotes and wolves share. Instruct the students to look at the "Appearance" section of both of the outlines they've created. Ask the following question:

- ✓ What detail listed for the coyote outline is repeated in the wolf outline? (*An appropriate response is as follows: the fact that they both have bushy tails.*)

Discuss the responses for accuracy. Write the answer to the question above under the "Appearance" heading of the "Both" section of the organizer, and have the students do the same on their copy of the handout. Instruct the students to write the remaining details from the "Appearance" section of the *It's So Organized I* handout under the "Appearance" heading in the circle labeled "Coyotes" on the *Comparing and Contrasting* handout. Then have them write the remaining details from the "Appearance" section of the *It's So Organized II* handout under the "Appearance" heading in the circle labeled "Wolves" on the *Comparing and Contrasting* handout. Discuss the responses for accuracy. Ask volunteers to write the correct information on the transparency.

13. Ask the third focus question. Give the students time to think about it. Conduct a discussion that leads the students to the understanding that a reader can use a Venn diagram to analyze, organize, record, and display information by
  - ✓ gathering information about two topics,
  - ✓ determining what information is shared by the two topics,
  - ✓ determining what information is not shared by the two topics,
  - ✓ writing the facts about one topic on one side of the diagram,
  - ✓ writing the facts about the other topic on the other side of the diagram,
  - ✓ writing the facts that are about both topics in the middle of the diagram.
14. Instruct the students to continue working in their pairs to complete the *Comparing and Contrasting* handout with the remaining details from the *It's So Organized I* and *It's So Organized II* handouts. Remind the students that while they may work together, each student is responsible for his or her own handout. When the students have finished, discuss their responses for accuracy. Have volunteers write appropriate responses on the transparency.



15. To conclude the lesson, have the students write responses to the following questions on the back of their *Comparing and Contrasting* handout:

- ✓ How can a reader use note cards to record information?
- ✓ How can a reader use an outline to organize information?
- ✓ How can a reader use a Venn diagram to analyze information?

Ask volunteers to share their responses with the class, and discuss them for accuracy. Remind the students that note cards, outlines, and organizers such as Venn diagrams can help them organize and understand information when they research information.

## **PRACTICE**

1. Divide the class into three-person groups. Inform the students about the two topics they will be researching, and brainstorm with the class for subtopics for research. With the help of the students, choose three subtopics. Distribute copies of the prepared research information and the note cards. Instruct the students to prepare their note cards with the subtopic headings in the same manner as they did during the Instruction component. The students should then work in a group to gather information on their note cards. Remind the students that although they may work cooperatively, each student is responsible for his or her own work. Circulate around the room to monitor student progress.
2. When the students have finished, distribute copies of the partially complete outlines. Instruct the students to complete the outlines with information from their note cards.
3. When the students have finished the outlines, distribute the poster board and markers. Instruct each group to create a large Venn diagram that compares and contrasts the two research topics.
4. When the students have finished, ask each group to present its outline and its Venn diagram in a whole-class setting. Discuss the students' information for accuracy and use the information to review the focus questions. Display the Venn diagrams on the classroom walls.

## **ASSESSMENT**

- Have the students read the chosen research information. Prepare several questions in the following manner:
  - ✓ (Venn diagram with missing point)  
What information would complete the missing point in the organizer?
  - ✓ What type of graphic organizer might be helpful in organizing documented facts about (topic)?
  - ✓ What type of graphic organizer might be helpful in comparing and contrasting (two topics)?

- ✓ (outline with missing point)  
What information would complete the missing information in the outline?
- ✓ If you decide to write a report about (topic), which subtopic might be used as a note card title?

### **Alternative Instruction:**

- Choose a famous historical person to research. With the students' assistance, list on the classroom board possible subtopics for research, such as "Childhood," "Achievements," and "Death." Distribute three note cards to each student, and instruct the students to label each card with one of the chosen subtopics. Take the students to the school library and instruct them to find multiple sources about the subtopics and to record relevant dates and details about each of the chosen subtopics on the appropriate note cards. When the students have finished, return to the classroom and display a transparency of a partially complete outline of information that includes the predetermined subtopics. Explain to the students that each of the Roman numerals on the outline is labeled with one of the subtopics they researched. The capital letters are more specific areas within each subtopic, such as "Where" and "When" under the "Childhood" subtopic. Explain that the numbers beneath these capital letters include details about where and when the person was born, respectively. With the students' assistance, complete the outline on the transparency. On the classroom board, draw a timeline. With the students' assistance, label each of the diagonal lines on the timeline in chronological order with dates and details from the completed outline. Conclude instruction by reminding the students that note cards, outlines, and timelines are useful in recording and organizing information.

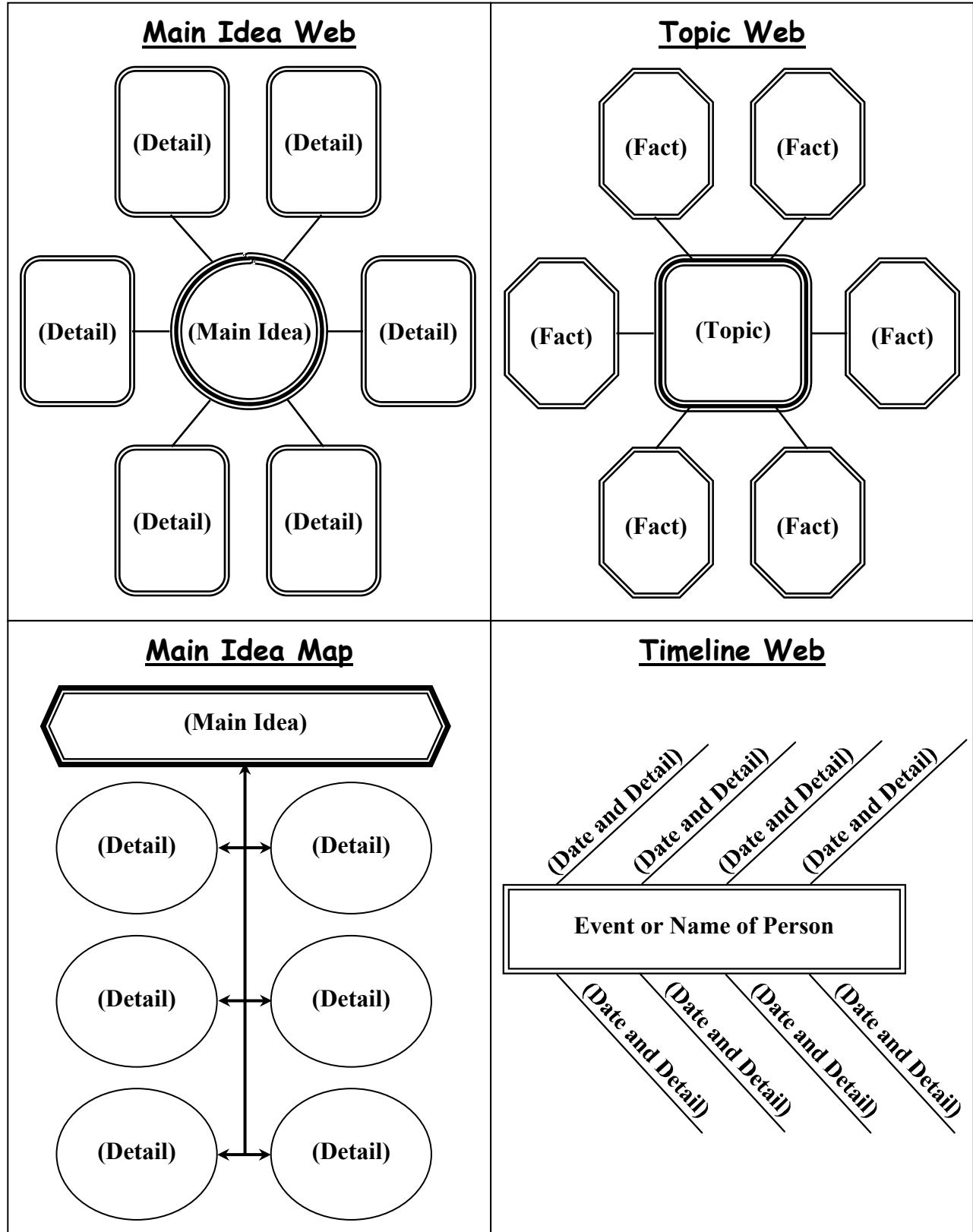
### **Alternative Practice:**

- Have the students form four-person groups. Tell each group to choose a famous person to research. Distribute three note cards to each student and instruct the students to label each card with the same subtopics used during the Alternative Instruction component. Return to the school library and instruct the students to find multiple sources about the subtopics and to record relevant information on their note cards. When the students have finished, return to the classroom and distribute a sheet of chart paper and a set of markers to each group. Instruct the students to use their note cards to complete an outline similar to the one they completed during the Alternative Instruction component, but with the details specific to the person their group researched. When the students have finished, provide each group with a spool of register tape. Instruct each student to create a timeline of the famous person's life on the register tape. When the students have finished, ask volunteers to present their outlines and timelines. Discuss all information for accuracy. Paste the timelines from each group to a large piece of butcher paper. Display the timelines on a classroom wall. Review the ways that a reader can record, organize, and display research information with note cards, outlines, and timelines.

**Alternative Assessment:**

- Prepare research materials about a famous person. Have the students read the information. Prepare several questions in the following manner:
  - ✓ (timeline with missing point)  
Which would best complete the missing point on the timeline?
  - ✓ Which graphic would be most helpful in ordering the events in (famous person's) life?
  - ✓ (outline with missing subtopic)  
What subtopic would complete the missing information in the outline?
  - ✓ (information about a subtopic)  
What subtopic would be appropriate for a note card with the information above?

# Types of Graphic Organizers



# Coyote Research Sources

## Encyclopedia Entry

### Coyote

The coyote (*Canis latrans*) is found solely in North America. Unlike most large mammals, the coyote has expanded its territory despite the expansion of the human population.

The coyote stands about two feet tall. Its coat varies in color from gray to tan. Its nose is long and pointed, and the fur on its tail is quite bushy. It is a very lean animal and weighs between 20 and 50 pounds on average.

Coyotes live and hunt either as individuals or as pairs, and they prey on small animals, such as shrews, mice, and rabbits. Coyotes mate for life. On an average, five coyote pups are born in each coyote litter.

Howls, yips, and barks are common among coyotes. These calls are often heard at twilight or in the evening.

## Newsletter Article

### **“Coyote Spotting”**

*by Bart Katz*

Well, neighbors, it's happened again. Another pet cat in our complex was found deceased. It was the victim of a coyote attack. Local animal control officials say that people often confuse coyotes for stray dogs. Sometimes well-intentioned residents even leave food out for them! It's important to know how to tell the difference between a coyote and a common pet dog.

The coyote is the size and shape of a collie, but its tail is very bushy and round. A coyote carries its tail straight down, directly below its back, but not between its legs. Its nose is very pointy. Its coat is gray or tan colored, and its tail may have a black tip.

Keep in mind that coyotes are extremely dangerous. They can hop an eight-foot-high fence in seconds. If you allow your pet to roam around unattended, you are putting it in severe danger. Learn how to spot a coyote, and by all means, don't feed these creatures! But remember, since we humans have encroached on their territory, it is important that we accommodate the coyote, not the other way around!

# Coyote Research Sources

(continued)

## Web Page

**All about Coyotes**  
**[www.allaboutcoyotes.com](http://www.allaboutcoyotes.com)**

### **Basic Coyote Facts**

**Basic Coyote Facts**



**The History of the  
Coyote**

**Coyote Fables and  
Folktales**

**Coyote Dangers and  
Human Precautions**



Coyotes live throughout North America. They originally lived only in the northwest corner of the United States, but their habitat has expanded enormously. You may even see them in Florida and eastern Canada now. As wolf removal by humans expanded, so did the coyote population. Ranchers who raise livestock that is too large for coyotes to prey on do not find coyotes threatening, so they do not hunt them. Coyotes live in a wide range of areas, from urban to rural.

Coyotes weigh about 20 to 50 pounds. Their fur is usually gray or tan, and they have very fluffy tails. They have pointy noses.

Coyotes use different types of communication. Much of their communication is through sound. They howl when they want to tell other coyotes where their territory is. They yelp when they play or celebrate. They bark as a threat when they are protecting their young. They also communicate through smell and through markings.

Coyotes often live alone. During mating season they travel in pairs, though. The male and female stay together to raise their pups. Pups usually stay with their parents for approximately a year. They then go independently on their own way.

Name \_\_\_\_\_

## It's So Organized I

### Coyotes

#### I. Appearance

##### A. Size

1. Weight
  - a. Between 20 and 50 pounds
2. Height

a. \_\_\_\_\_

##### B. Physical Features

1. Coat
  - a. Gray or tan
  - b. \_\_\_\_\_
2. \_\_\_\_\_
  - a. Pointy nose
  - b. Bushy, round tail
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_

#### II. \_\_\_\_\_

##### A. Where They Live

1. North America
  - a. Originally lived only in the northwest corner of the U.S.
  - b. \_\_\_\_\_
2. Type of Area
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_

##### B. Population

1. Endangerment Status
  - a. Not endangered
2. After Human Encroachment
  - a. Population growth
  - b. \_\_\_\_\_

#### III. Family Structure

##### A. Social Groups

1. \_\_\_\_\_
2. \_\_\_\_\_

##### B. Young

1. \_\_\_\_\_
2. \_\_\_\_\_

# Wolf Research Sources

## Encyclopedia Entry

### Wolf

There are many different types of wolves. The most well known is the gray wolf (*Canis lupus*).

At one time, wolves inhabited much of North America. Humans have caused the wolf population to decline dramatically. Wolves still exist in North America, but in much lower numbers, especially in the United States. They are now considered to be endangered in every state except Alaska and Minnesota. Wolves live in forests, tundra, and grasslands.

Wolves stand between 24 to 35 inches high at the shoulder. They weigh between 65 to 120 pounds. The color of a wolf's coat can be gray, brown, red, black, or white. Their muzzles are short and rectangular.

Wolves usually travel in packs. The size of a wolf pack varies, but on average it contains six to seven wolves. They have a strict family structure. The alpha male and female are at the "top" of the pack, and are usually the only two wolves in the pack that are able to raise pups successfully. The omega wolf is at the bottom of the pack, and is often treated cruelly by the other wolves.

Wolves communicate through howling. Their howls have different meanings. Wolves usually howl at twilight.

## Animal Rights Magazine Article

### "Family Structure of Wolf Packs"

*by Ann Eliese*

I often wonder if those who hunt wolves truly understand how complex these magnificent creatures really are. Wolves live in a complicated family structure that, in some ways, is like our own. The alpha wolves are the leaders and have the freedom to go wherever they want, whenever they want. The other wolves follow them. Sometimes the alpha wolf has a beta wolf, much like a pilot has a copilot. The omega wolf is the lowest member of the pack. It has few rights and is often attacked by other wolves in the group. It is the wolf pack "outcast." This is an unpleasant fact, but human social groups are at times quite similar.



# Wolf Research Sources

(continued)

## Web Page

### **Wolves in the Wild** **www.wolvesinthewild.com**

**All about Wolves**



**Wolf Endangerment**

**Wolf Legends**

Wolves are beautiful, complicated creatures that inhabit several continents. They live in complicated family structures. Lately wolf numbers have decreased because humans hunt them.

Wolves range in color from dark black to completely white. Frequently a whole population of wolves is entirely one solid color. Older wolves have gray in their fur. Multicolor wolf coats do not appear to have a pattern. However, wolf coats may aid in camouflage. All white wolves tend to live in snow-covered areas.

Wolves weigh between 65 and 120 pounds and stand 24 to 35 inches tall at the shoulder. They are massive animals and seem more massive than they really are because of their two dense coats of fur. Female wolves tend to weigh 20 percent less than male wolves. Wolves also have stout muzzles, large fluffy tails, and wide paws.

Wolves live in set family structures called packs. Generally only the two top wolves, or alphas, successfully raise pups to maturity. The other wolves will breed, but often will not be able to provide well for their young. There are usually between four and six pups in a litter. After they are born, the wolf pups live in the wolf den, where they stay until they are eight weeks old. Then the wolves live with their parents until they are about three years old.

Humans and wolves have historically had a very uneasy relationship. In the times of Manifest Destiny, humans began to encroach upon the wolves' territory. Wolves were valued for their fur and often were hunted. Ranchers despise wolves to this day because they attack livestock. Wolves are now considered endangered in most states.



Name \_\_\_\_\_

## It's So Organized II

### Wolves

#### I. Appearance

##### A. Size

##### 1. Height

a. \_\_\_\_\_

##### 2. Weight

a. \_\_\_\_\_

b. \_\_\_\_\_

##### B. Physical Features

##### 1. Coat

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. May be used for camouflage, as white wolves live in snowy areas

e. Older wolves have gray fur

f. Seem massive because of two dense coats

##### 2. Body Shape

a. Short, rectangular muzzles

b. \_\_\_\_\_

c. \_\_\_\_\_

#### II. Habitat

##### A. Where They Live

##### 1. North America

a. \_\_\_\_\_

##### 2. Type of Area

a. \_\_\_\_\_

##### B. Population

##### 1. Endangerment Status

a. \_\_\_\_\_

##### 2. After Human Encroachment

a. \_\_\_\_\_

b. Hunted because they kill livestock

# It's So Organized II

*(continued)*

## III. Family structure

### A. Social Groups

1. Live in packs of 6 or 7 wolves

2. \_\_\_\_\_

3. \_\_\_\_\_

4. Omega wolf is the outcast and is often attacked

### B. Young

1. All wolves breed

2. Usually only alphas are able to raise pups to maturity

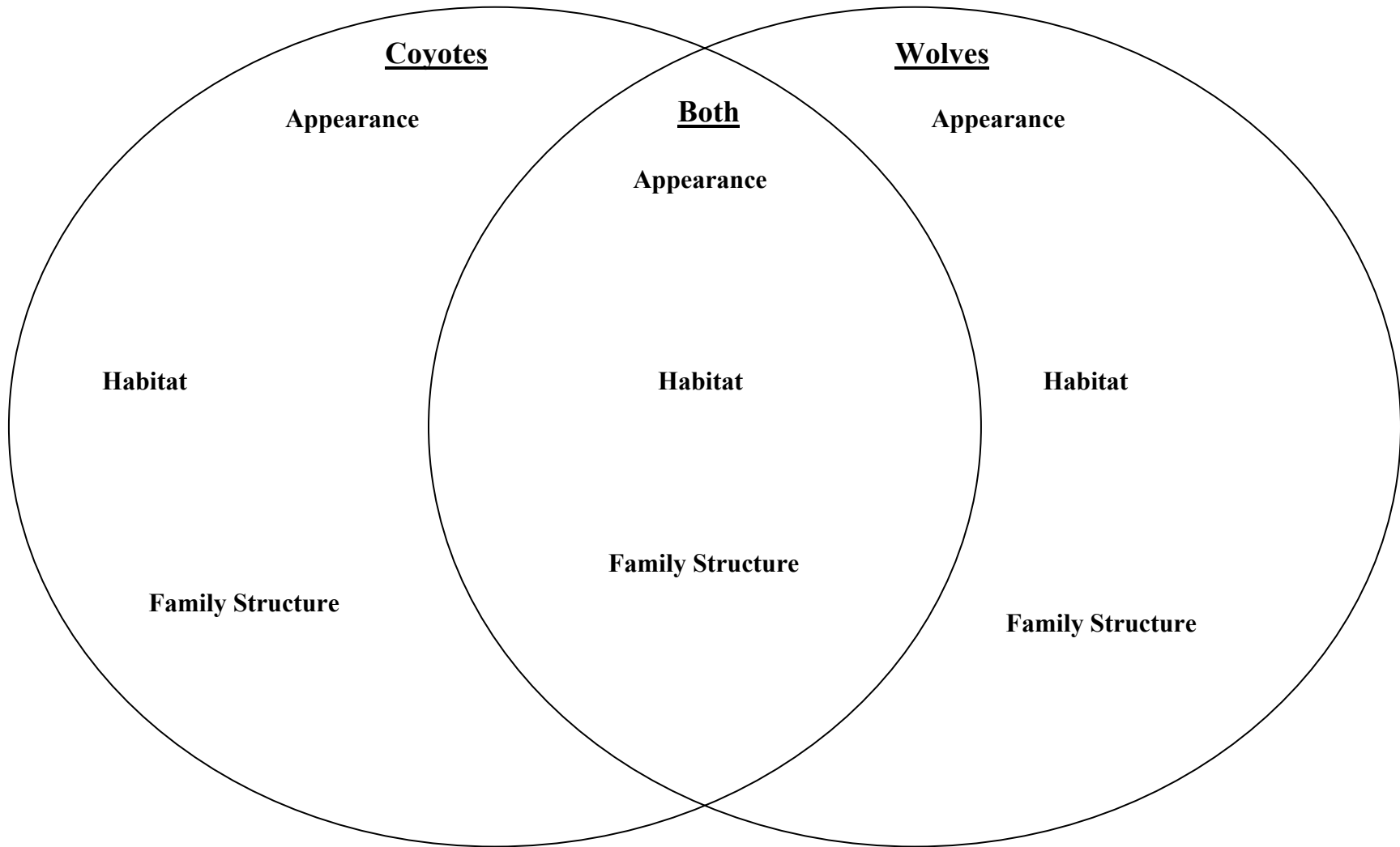
3. \_\_\_\_\_

4. Pups live in the wolf den until they are 8 weeks old

5. \_\_\_\_\_

Name \_\_\_\_\_

## Comparing and Contrasting



<b>TEACHER'S ANSWER KEY</b>
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## **It's So Organized I**

### **Coyotes**

- I. Appearance
  - A. Size
    - 1. Weight
      - a. Between 20 and 50 pounds
    - 2. Height
      - a. 2 feet tall
  - B. Physical Features
    - 1. Coat
      - a. Gray or tan
      - b. Tail may have black tip
    - 2. Body Shape
      - a. Pointy nose
      - b. Bushy, round tail
      - c. Size and shape of a collie
      - d. Look lean
- II. Habitat
  - A. Where They Live
    - 1. North America
      - a. Originally lived only in the northwest corner of the U.S.
      - b. Now live throughout, including Florida and Canada
    - 2. Type of Area
      - a. Live in urban or rural areas
      - b. May go into human communities
  - B. Population
    - 1. Endangerment Status
      - a. Not Endangered
    - 2. After Human Encroachment
      - a. Population growth
      - b. Took over wolf territory because they don't kill livestock
- III. Family Structure
  - A. Social Groups
    - 1. Live alone or in pairs
    - 2. Mate for life
  - B. Young
    - 1. Male and female raise pups together
    - 2. Pups live with parents for a year

<b>TEACHER'S ANSWER KEY</b>
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## **It's So Organized II**

### **Wolves**

- I. Appearance
  - A. Size
    - 1. Height
      - a. 24 to 35 inches tall at shoulder
    - 2. Weight
      - a. 65 to 120 pounds
      - b. Females weigh 20% less than males
  - B. Physical Features
    - 1. Coat
      - a. Gray, brown, red, black, or white
      - b. Often a whole population is one color
      - c. Multicolor coats have no pattern
      - d. May be used for camouflage, as white wolves live in snowy areas
      - e. Older wolves have gray fur
      - f. Seem massive because of two dense coats
    - 2. Body Shape
      - a. Short, rectangular muzzles
      - b. Bushy tails
      - c. Wide paws
- II. Habitat
  - A. Where They Live
    - 1. North America
      - a. Live throughout North America
    - 2. Type of Area
      - a. Forests, tundra, grasslands
  - B. Population
    - 1. Endangerment Status
      - a. Endangered in all U.S. states except Alaska and Minnesota
    - 2. After Human Encroachment
      - a. Population decline
      - b. Hunted because they kill livestock
- III. Family Structure
  - A. Social Groups
    - 1. Live in packs of 6 or 7 wolves
    - 2. Alpha wolves are the leaders of the group
    - 3. Sometimes there is a beta wolf that is like the alpha wolf's copilot
    - 4. Omega wolf is the outcast and is often attacked
  - B. Young
    - 1. All wolves breed
    - 2. Usually only alphas are able to raise pups to maturity
    - 3. 4 to 6 pups in a litter
    - 4. Pups live in the wolf den until they are 8 weeks old
    - 5. Pups live with their parents until they are 3 years old